

and 214 of the Commission's Rules of Practice and Procedure. All such motions or protests should be filed on or before May 21, 1985. Protests will be considered by the Commission in determining the appropriate action to be taken, but will not serve to make protestants parties to the proceeding. Any person wishing to become a party must file a motion to intervene. Copies of this filing are on file with the Commission and are available for public inspection.

Kenneth F. Plumb,
Secretary.

[FR Doc. 85-12203 Filed 5-20-85; 8:45 am]

BILLING CODE 6717-01-M

Oil Pipeline; Tentative Valuation

May 17, 1985.

The Federal Energy Regulatory Commission by order issued February 10, 1978, established an Oil Pipeline Board and delegated to the Board its functions with respect to the issuance of valuation reports pursuant to section 19a of the Interstate Commerce Act.

Notice is hereby given that a tentative valuation is under consideration for the common carrier by pipeline listed below:

1983 Annual Report

Valuation Docket No. PV-1479-000—
General American Pipe Line
Company, 944 Adams Building,
Bartlesville, Oklahoma 74004.

On or before June 24, 1985, persons other than those specifically designated in section 19a(h) of the Interstate Commerce Act having an interest in this valuation may file, pursuant to rule 214 of the Federal Energy Regulatory Commission's "Rules of Practice and Procedure" (18 CFR 385.214), an original and three copies of a petition for leave to intervene in this proceeding.

If the petition for leave to intervene is granted the party may thus come within the category of "additional parties as the FERC may prescribe" under section 19a(h) of the Act, thereby enabling it to file a protest. The petition to intervene must be served on the individual company at its address shown above and an appropriation certificate of service must be attached to the petition. Persons specifically designated in section 19a(h) of the Act need not file a petition; they are entitled to file a protest as a matter of right under the statute.

Francis J. Conner,

Administrative Officer, Oil Pipeline Board.

[FR Doc. 85-12204 Filed 5-20-85; 8:45 am]

BILLING CODE 6717-01-M

ENVIRONMENTAL PROTECTION AGENCY

[OPTS-41018; TSH-FRI 2839-1]

Sixteenth Report of the Interagency Testing Committee to the Administrator; Receipt of Report and Request for Comments Regarding Priority List of Chemicals

AGENCY: Environmental Protection Agency (EPA).

ACTION: Notice.

SUMMARY: The Interagency Testing Committee (ITC), established under section 4(e) of the Toxic Substances Control Act (TSCA), transmitted its Sixteenth Report to the Administrator of EPA on May 2, 1985. This report, which revises and updates the Committee's priority list of chemicals, adds five designated chemicals to the list for priority consideration by EPA in the promulgation of test rules under section 4(a) of the Act. The new designated chemicals are methyldicyclopentane (CAS No. 96-37-7), tetrabromobisphenol A (CAS No. 79-94-7), triethylene glycol monomethyl ether (CAS No. 112-35-6), triethylene glycol monoethyl ether (CAS No. 112-50-5), and triethylene glycol monobutyl ether (CAS No. 143-22-6). The Sixteenth Report is included in this notice.

The Agency invites interested persons to submit written comments on the Report, and to attend Focus Meetings to help narrow and focus the issues raised by the ITC's recommendations. Members of the public are also invited to inform EPA if they wish to be notified of subsequent public meetings on these chemicals. ITC also notes the removal of 4 chemicals from the priority list because EPA has responded to the ITC's previous recommendations for testing of the chemicals.

DATES: Written comments should be submitted by June 20, 1985. Focus Meetings will be held on June 12, 1985.

ADDRESSES: Send written submissions to: TSCA Public Information Office (TS-793), Office of Pesticides and Toxic Substances, Environmental Protection Agency, Rm. E-108, 401 M St., SW., Washington, D.C. 20460.

Submissions should bear the document control number (OPTS-41018).

The public record supporting this action, including comments, is available for public inspection in Rm. E-107 at the address noted above from 8 a.m. to 4 p.m. Monday through Friday, except legal holidays. Focus Meetings will be held June 12, 1985 at the Disabled American Veterans (DAV) Headquarters, 807 Maine Ave., SW.,

Washington, D.C. Persons planning to attend any one of the Focus Meetings and/or seeking to be informed of subsequent public meetings on these chemicals, should notify the TSCA Assistance Office at the address listed below. To insure seating accommodations at the Focus Meeting, persons interested in attending are asked to notify EPA at least one week ahead of the scheduled dates.

FOR FURTHER INFORMATION CONTACT:

Edward A. Klein, Director, TSCA Assistance Office (TS-799), Office of Toxic Substances, Environmental Protection Agency, 401 M St., SW., Washington, D.C.: 20406.

Toll Free: (800-424-9065).

In Washington, D.C.: (5543-1404).

Outside the USA: (Operator-202-554-1404).

SUPPLEMENTARY INFORMATION: EPA has received the Sixteenth Report of the TSCA Interagency Testing Committee to the Administrator.

I. Background

Section 4(a) of TSCA (Pub. L. 94-469, 90 Stat. 2003 *et seq.*; 15 U.S.C. 2601 *et seq.*) authorizes the Administrator of EPA to promulgate regulations requiring testing of chemical substances and mixtures in order to develop data relevant to determining the risks that such chemical substances and mixtures may present to health and the environment.

Section 4(e) of TSCA established an Interagency Testing Committee to make recommendations to the Administrator of EPA of chemical substances and mixtures to be given priority consideration in proposing test rules under section 4(a). Section 4(e) directs the Committee to revise its list of recommendations at least every 6 months as necessary. The ITC may "designate" up to 50 substances and mixtures at any one time for priority consideration by the Agency. For such designations, the Agency must within 12 months either initiate rulemaking or issue in the Federal Register its reasons for not doing so. The ITC's Sixteenth Report was received by the Administrator on May 2, 1985, and follows this Notice. The Report designates five substances for priority consideration and response by EPA within 12 months.

II. Written and Oral Comments and Public Meetings

EPA invites interested persons to submit detailed comments on the ITC's new recommendations. The Agency is interested in receiving information

conce
and s
chemi
relati
expos
amen
today
subst
Sixte
8(d) F
Rule
rule r
unpul
on the
chem
TSCA
Asse:
Part 7
issue.
repor
expo:
the li
For
relev
chem
issue
the A
respo
The I
1985
Ave.
meet
and
subn
sche
follo
tetra
trieth
trieth
trieth
p.m.
Pe
of th
mee
the
free
wee
A
the
4101
III. S
In
desi
ITC
rem
sinc
has
reco
che
pre:
resj
reco
che
and
Fed
the
But
198

concerning additional or ongoing health and safety studies on the subject chemicals as well as information relating to the human and environmental exposure to these chemicals. A rule amendment is published elsewhere in today's Federal Register adding the five substances designated in the ITC's Sixteenth Report to the TSCA section 8(d) Health and Safety Data Reporting Rule (40 CFR Part 716). The section 8(d) rule requires the reporting of unpublished health and safety studies on the listed chemicals. These five chemicals will also be added to the TSCA section 8(a) Preliminary Assessment Information Rule (40 CFR Part 712) published elsewhere in this issue. The section 8(a) rule requires the reporting of production volume, use, exposure, and release information on the listed chemicals.

Focus Meetings will be held to discuss relevant issues pertaining to the chemicals and to narrow the range of issues/effects which will be the focus of the Agency's subsequent activities in responding to the ITC recommendations. The Focus Meetings will be held June 12, 1985 at DAV Headquarters, 807 Main Ave., SW, Washington, D.C. These meetings are intended to supplement and expand upon written comments submitted in response to this notice. The schedule for the Focus Meetings is as follows: methylcyclopentane: 9:30 a.m.; tetrabromobisphenol A: 11 a.m.; triethylene glycol monomethyl ether, triethylene glycol monoethyl ether, triethylene glycol monobutyl ether: 2 p.m.

Persons wishing to attend one or more of these meetings or subsequent meetings on these chemicals should call the TSCA Assistance Office at the toll free number listed above at least one week in advance.

All written submissions should bear the identifying docket number (OPTS-41018).

III. Status of List

In addition to adding the five designations to the priority list, the ITC's Sixteenth Report notes the removal of four chemicals from the list since the last ITC report because EPA has responded to the Committee's prior recommendations for testing of the chemicals. Subsequent to the ITC's preparation of its Fifteenth Report, EPA responded to the ITC's recommendations for four additional chemicals. The four chemicals removed and the dates of publication in the Federal Register of EPA's responses to the ITC for these chemicals are: 2-(2-Butoxyethoxy)ethyl acetate, Nov. 19, 1984 (49 FR 45606-45610); Ethylene-

bis(oxyethylene) diacetate, Nov. 19, 1984 (49 FR 45651-45654); 1,2,3,4,7,7-Hexachloronorbornadiene, Nov. 19, 1984 (49 FR 45654-45657); Oleylamine, Nov. 19, 1984 (49 FR 45610-45617). The current list contains 17 designated substances or groups of substances and two recommended substances or groups of substances.

Authority: 15 U.S.C. 2601.

Dated: May 15, 1985.

J. Merenda,

Director, Existing Chemical Assessment Division.

Sixteenth Report of the TSCA Interagency Testing Committee to the Administrator, Environmental Protection Agency

Summary

Section 4 of the Toxic Substances Control Act of 1976 (TSCA, Pub. L. 94-469) provides for the testing of chemicals in commerce that may present an unreasonable risk of injury to health or the environment. It also provides for the establishment of a Committee, composed of representatives from eight designated Federal agencies, to recommend chemical substances and mixtures (chemicals) to which the Administrator of the U.S. Environmental Protection Agency (EPA) should give priority consideration for the promulgation of testing rules.

Section 4(e)(1)(A) of TSCA directs the Committee to recommend to the EPA Administrator chemicals to which the Administrator should give priority

consideration for the promulgation of testing rules pursuant to section 4(a). The Committee is required to designate those chemicals, from among its recommendations, to which the Administrator should respond within 12 months by either initiating a rulemaking proceeding under section 4(a) or publishing the Administrator's reason for not initiating such a proceeding. Every 6 months, the Committee makes those revisions in the TSCA section 4(e) Priority List that it determines to be necessary and transmits them to the EPA Administrator.

As a result of its deliberations, the Committee is revising the TSCA section 4(e) Priority List by the addition of five chemicals, and is noting the removal of four as a result of responses by EPA.

The Priority List is divided into two parts: Part A contains those recommended chemicals and groups designated for priority consideration and response by the EPA Administrator within 12 months, and Part B contains chemicals and groups that have been recommended for priority consideration by EPA without being designated for response within 12 months. Although TSCA does not establish a deadline for EPA response to nondesignated chemicals and groups (Part B of the Priority List), the Committee anticipates that the EPA Administrator will respond in a timely manner.

The chemicals being added to the Priority List are presented, together with the types of testing recommended, in the following Table 1.

TABLE 1.—ADDITIONS TO THE SECTION 4(e) PRIORITY LIST—MAY 1985

Chemical/group	Recommended studies
A. Designated for response within 12 mos.	
Methylcyclopentane (CAS No. 96-37-7)	Health effects: Chronic toxicity studies including neurotoxicity, cardiotoxicity, and oncogenicity; genotoxicity; reproductive and teratogenic effects.
Tetrabromobisphenol A (CAS No. 79-94-7)	Chemical fate: Water solubility, soil adsorption coefficient, persistence.
Triethylene glycol monomethyl ether (CAS No. 112-35-6); triethylene glycol monoethyl ether (CAS No. 112-50-5); and triethylene glycol monobutyl ether (CAS No. 143-22-6).	Ecological effects: Acute and chronic toxicity to fish, aquatic invertebrates, and algae; bioconcentration potential in fish.
	Health effects: Toxicokinetic (absorption, distribution, and excretion) and metabolic studies. Additional testing conditional upon results of toxicokinetic and metabolic studies; subchronic studies with emphasis on hematologic effects; reproductive and developmental toxicity studies.
B. Recommended but not designated for response with 12 mos: None.	

TSCA Interagency Testing Committee

Statutory Member Agencies and Their Representatives

Council on Environmental Quality

Harvey Doerksen, Member¹

George W. Schlossnagle, Alternate²

Department of Commerce

Bernard Greifer, Member and Chairperson

Environmental Protection Agency

Carl R. Morris, Member
Robert Brink, Alternate³

National Cancer Institute

Elizabeth K. Weisburger, Member
Richard Adamson, Alternate

National Institute of Environmental Health Sciences

Dorothy Canter, Member

National Institute for Occupational Safety and Health

Rodger L. Tatken, Member
Sanford S. Leffingwell, Alternate

National Science Foundation

Winston C. Nottingham, Member

Occupational Safety and Health Administration

Allan Salzberg,⁴
Stephen Mallinger, Alternate⁵

Liaison Agencies and Their Representatives

Consumer Product Safety Commission

Lakshmi Mishra
Arthur Gregory

Department of Agriculture

Homer E. Fairchild
Richard M. Parry, Jr.

Department of Defense

Edmund Cummings
Patrick A. Truman

Department of the Interior

Vyto A. Adomaitis
David R. Rosenberger

Food and Drug Administration

Arnold Borsetti, Vice Chairperson
Allen H. Heim

National Toxicology Program

Dorothy Canter

Committee Staff

Arthur M. Stern, Acting Executive Secretary
Norma Williams, ITC Coordinator

Support Staff

Alan Carpien—Office of the General Counsel, EPA

Stephen J. Eills—Office of Toxic Substances, EPA

Vera W. Hudson—National Library of Medicine

Notes

¹ Appointed on October 29, 1984.

² Resigned from the Committee on November 15, 1984.

³ Appointed on October 4, 1984; selected as the Executive Secretary, effective April 23, 1985.

⁴ Appointed on November 15, 1984.

⁵ Appointed on October 18, 1984.

The Committee acknowledges and is grateful for the assistance and support given the ITC by the staffs of CRCs, Inc., and Dynamac Corporation (technical support prime and subcontractors) and personnel of the EPA Office of Toxic Substances.

Chapter 1—Introduction

1.1 Background. The TSCA Interagency Testing Committee (Committee) was established under section 4(e) of the Toxic Substances Control Act of 1976 (TSCA, Pub. L. 94-469). The specific mandate of the Committee is to recommend to the Administrator of the U.S. Environmental Protection Agency (EPA) chemical substances and mixtures in commerce that should be given priority consideration for the promulgation of testing rules to determine their potential hazard to human health and/or the environment. TSCA specifies that the Committee's recommendations shall be in the form of a Priority List, which is to be published in the *Federal Register*. The Committee is directed by section 4(3)(1)(A) of TSCA to designate those chemicals on the Priority List to which the EPA Administrator should respond within 12 months by either initiating a rulemaking proceeding under section 4(a) or publishing the Administrator's reason for not initiating such a proceeding. There is no statutory time limit for EPA response regarding chemicals that ITC has recommended, but not designated for response within 12 months.

Every 6 months, the Committee makes those revisions in the section 4(e) Priority List that it determines to be necessary and transmits them to the EPA Administrator.

The Committee is comprised of representatives from eight statutory member agencies, five liaison agencies, and one national program. The specific representatives and their affiliations are named in the front of this report. The Committee's chemical review procedures and prior recommendations are described in previous reports (Refs. 1 through 15).

1.2 Committee's previous reports. Fifteen previous reports to the EPA Administrator have been issued by the Committee and published in the *Federal Register* (Refs. through 15). Eighty-six entries (chemicals and groups of chemicals) were recommended for priority consideration by the EPA Administrator and designated for response within 12 months. In addition, two groups were recommended without being so designated. Removal of 70 entries was noted in the previous reports.

1.3 Committee's activities during this reporting period. Between October 1, 1984, and March 31, 1985, the Committee continued to review chemicals from its fourth and fifth scoring exercises, and from nominations by Member Agencies.

The Committee contacted chemical manufacturers and trade associations to request information that would be of value in its deliberations. Most of those contacted provided unpublished information on current production, exposure, use, and effects of chemicals under study by the Committee.

During their reporting period, the Committee examined 86 chemicals for priority consideration. Five chemicals were added to the section 4(e) Priority List, and 22 were deferred indefinitely. The remaining chemicals are still under study.

1.4 The TSCA section 4(e) Priority List. Section 4(e)(1)(B) of TSCA directs the Committee to: "... make such revisions in the [priority] list as it determines to be necessary and ... transmit them to the Administrator together with the Committee's reasons for the revisions." Under this authority, the Committee is revising the Priority List by adding five chemicals: methylcyclopentane; tetrabromobisphenol A; triethylene glycol monomethyl ether, triethylene glycol monoethyl ether, and triethylene glycol monobutyl ether. All of these chemicals are designated for response within 12 months. The testing recommended for these chemicals and the rationales for the recommendations are presented in Chapter 2 of this report.

Four chemicals are being removed from the Priority List because the EPA Administrator has responded to the Committee's prior recommendations for testing them. They are:

2-(2-Butoxyethylthoxy)ethyl acetate
Ethylene bis(oxyethylene) diacetate
1,2,3,4,7,7-Hexachloronorbornadiene
Oleylamine

With the five recommendations and four removals noted in this report, 19 entries now appear on the section 4(e) Priority List. The Priority List is divided in the following Table 2 into two parts; namely, Table 2A, Chemicals and Groups of Chemicals Designated for Response Within 12 Months, and Table 2B, Other Recommended Chemicals and Groups of Chemicals.

TABLE 2—THE TSCA SECTION 4(e) PRIORITY LIST—MAY 1985

Entry	Date of designation
2A Chemicals and Groups of Chemicals Designated for Response Within 12 Mos	
1. Anthraquinone.....	Nov. 1984.
2. Bisphenol A.....	May 1984.
3. 2-Chloro-1,3-butadiene.....	Nov. 1984.
4. Cumene.....	Do.
5. 1,2-Dibromo-4-(1,2-dibromomethyl) cyclohexane.....	May 1984.
6. Diisopropyl biphenyl.....	Do.

TABLE 2—THE TSCA SECTION 4(e) PRIORITY LIST—MAY 1985—Continued

Entry	Date of designation
7. 2-Ethylhexanoic acid	Do.
8. Isopropyl biphenyl	Do.
9. Mercaptobenzothiazole	Nov. 1984.
10. Methylcyclopentane	May 1985.
11. Octamethylcyclotetrasiloxane	Nov. 1984.
12. Pentabromoethylbenzene	Do.
13. Sodium <i>N</i> -methyl- <i>N</i> -oleoyltaurine	Do.
14. Tetrabromobisphenol A	May 1985.
15. Triethylene glycol monomethyl ether	Do.
16. Triethylene glycol monoethyl ether	Do.

TABLE 2—THE TSCA SECTION 4(e) PRIORITY LIST—MAY 1985—Continued

Entry	Date of designation
17. Triethylene glycol monobutyl ether	Do.
2B. Other Recommended Chemicals and Groups of Chemicals	
1. Carbofuran intermediates	Nov. 1982.
2. 3,4-Dichlorobenzotrifluoride	May 1984.

To date, 74 chemicals and groups of chemicals have been removed from the Priority List. The cumulative list is presented in the following Table 3.

TABLE 3.—CUMULATIVE REMOVALS FROM THE TSCA SECTION 4(e) PRIORITY LIST—MAY 1985

[EPA Responses to committee recommendations]

Chemical/group	Federal Register	
	Citation	Publication date
1. Acetonitrile	47 FR 58020-58023	Dec. 29, 1982.
2. Acrylamide	49 FR 30592-30594	July 31, 1984.
3. Alkyl epoxides	49 FR 449-456	Jan. 4, 1984.
4. Alkyl phthalates	46 FR 53775-53777	Oct. 30, 1981.
5. Alkyltin compounds	47 FR 5456-5463	Feb. 5, 1982.
6. Aniline and bromo-, chloro-, and/or nitroanilines	49 FR 108-126	Jan. 3, 1984.
7. Antimony metal	48 FR 717-725	Jan. 6, 1983.
8. Antimony sulfide	48 FR 717-725	Do.
9. Antimony trioxide	48 FR 717-725	Do.
10. Aryl phosphates	48 FR 57452-57460	Dec. 29, 1983.
11. Benzidine-based dyes	46 FR 55004-55006	Nov. 5, 1981.
12. Benzyl butyl phthalate	46 FR 53775-53777	Oct. 30, 1981.
13. Biphenyl	48 FR 23080-23086	May 23, 1983.
14. Bis(2-ethylhexyl) terephthalate	48 FR 51845-51848	Nov. 14, 1983.
15. 2-(2-Butoxyethoxy)ethyl acetate	49 FR 45606-45610	Nov. 19, 1984.
16. Butyl glycolyl butyl phthalate	46 FR 54487	Nov. 2, 1981.
17. Calcium naphthenate	49 FR 21411-21418	May 21, 1984.
18. Chlorendic acid	47 FR 44878-44789	Oct. 12, 1982.
19. Chlorinated benzenes, mono- and di-	49 FR 50408-50409	Dec. 28, 1984.
20. Chlorinated benzenes, tri-, tetra-, and penta-	49 FR 50408-50409	Do.
21. Chlorinated naphthalenes	46 FR 54491	Nov. 2, 1981.
22. Chlorinated paraffins	47 FR 1017-1019	Jan. 8, 1982.
23. 4-Chlorobenzotrifluoride	47 FR 50555-50558	Nov. 8, 1982.
24. Chloromethane	45 FR 48524-48564	July 18, 1980.
25. 2-Chlorotoluene	47 FR 18172-18175	Apr. 28, 1982.
26. Cobalt naphthenate	49 FR 21411-21418	May 21, 1984.
27. Cresols	48 FR 31812-31819	July 11, 1983.
28. Cyclonexanone	49 FR 136-142	Jan. 3, 1984.
29. <i>o</i> -Dianisidine-based dyes	46 FR 55004-55006	Nov. 5, 1981.
30. Dibutyltin bis(isooctyl maleate)	48 FR 51361-51366	Nov. 8, 1983.
31. Dibutyltin bis(isooctyl mercaptoacetate)	48 FR 51361-51366	Do.
32. Dibutyltin bis(lauryl mercaptide)	48 FR 51361-51366	Do.
33. Dibutyltin dilaurate	48 FR 51361-51366	Do.
34. Dichloromethane	46 FR 30300-30320	June 5, 1981.
35. 1,2-Dichloropropane	49 FR 899-908	Jan. 6, 1984.
36. Diethylenetriamine	47 FR 18386-18391	Apr. 29, 1982.
37. Dimethyltin bis(isooctyl mercaptoacetate)	48 FR 51361-51366	Nov. 8, 1983.
38. 1,3-Dioxolane	49 FR 32113-32114	Aug. 10, 1984.
39. Ethylene bis(oxyethylene) diacetate	49 FR 45651-45654	Nov. 19, 1984.
40. Ethyltoluene	48 FR 23088-23095	May 23, 1983.
41. Fluoroalkenes	46 FR 53704-53708	Oct. 30, 1981.
42. Formamide	48 FR 23098-23102	May 23, 1983.
43. Glycidol and its derivatives	48 FR 57562-57571	Dec. 30, 1983.
44. Halogenated alkyl epoxides	48 FR 57686-57700	Do.
45. Hexachloro-1,3-butadiene	47 FR 58029-58031	Dec. 29, 1982.
46. Hexachlorocyclopentadiene	47 FR 58023-58025	Do.
47. Hexachloroethane	47 FR 18175-18176	Apr. 28, 1982.
48. 1,2,3,4,7,7-Hexachloronorbomadiene	49 FR 45654-45657	Nov. 19, 1984.
49. Hydroquinone	49 FR 438-449	Jan. 4, 1984.
50. Isophorone	48 FR 727-730	Jan. 6, 1983.
51. Lead naphthenate	49 FR 21411-21418	May 21, 1984.
52. Mesityl oxide	48 FR 30699-30706	July 5, 1983.
53. 4,4'-Methylenedianiline	48 FR 31806-31810	July 11, 1983.
54. Methyl ethyl ketone	47 FR 58025-58029	Dec. 29, 1982.
55. Methyl isobutyl ketone	47 FR 58025-58029	Do.
56. Methylolurea	49 FR 21371-21375	May 21, 1984.
57. Monobutyltin tris(isooctyl mercaptoacetate)	48 FR 51361-51366	Nov. 8, 1983.
58. Monomethyltin tris(isooctyl mercaptoacetate)	48 FR 51361-51366	Do.
59. Nitrobenzene	46 FR 30300-30320	June 5, 1981.
60. Oleylamine	49 FR 45610-45617	Nov. 19, 1984.
61. 2-Phenoxyethanol	49 FR 21407-21411	May 21, 1984.
62. Phenylenediamines	50 FR 4267-4269	Jan. 30, 1985.
63. Polychlorinated terphenyls	46 FR 54482-54483	Nov. 2, 1981.
64. Pyridine	47 FR 58031-58035	Dec. 29, 1982.
65. Quinone	49 FR 456-465	Jan. 4, 1984.
66. 4-(1,1,3,3-Tetramethylbutyl)phenol	49 FR 29449-29450	July 20, 1984.
67. <i>o</i> -Tolidine-based dyes	46 FR 55004-55006	Nov. 5, 1981.
68. Toluene	47 FR 56391-56392	Dec. 16, 1982.

TABLE 3.—CUMULATIVE REMOVALS FROM THE TSCA SECTION 4(e) PRIORITY LIST—MAY 1985—Continued

(EPA Responses to committee recommendations)

Chemical/group	Federal Register	
	Citation	Publication date
69. 1,2,4-Trimethylbenzene.....	48 FR 23088-23095.....	May 23, 1983.
70. Trimethylbenzenes.....	48 FR 23088-23095.....	Do.
71. 1,1,1-Trichloroethane.....	49 FR 39810-39818.....	Oct. 10, 1984.
72. Tris(2-chloroethyl) phosphite.....	47 FR 49466-49467.....	Nov. 1, 1982.
73. Tris(2-ethylhexyl)trimellitate.....	48 FR 51842-51845.....	Nov. 14, 1983.
74. Xylenes.....	47 FR 56392-56394.....	Dec. 18, 1982.

¹ Removed by the Committee for reconsideration. Seven individual group members were subsequently designated in the 11th ITC Report (Ref. 11) for priority consideration.

References

(1) Initial Report to the Administrator, Environmental Protection Agency, TSCA Interagency Testing Committee, October 1, 1977. Published in the *Federal Register* of Wednesday, October 12, 1977, 42 FR 55028-55080. Corrections published in the *Federal Register* of November 11, 1977, 42 FR 58777-58778. The report and supporting dossiers were also published by the Environmental Protection Agency, EPA 560-10-78/001, January 1978.

(2) Second Report of the TSCA Interagency Testing Committee to the Administrator, Environmental Protection Agency, TSCA Interagency Testing Committee, April 1978. Published in the *Federal Register* of Wednesday, April 19, 1978, 43 FR 16684-16688. The report and supporting dossiers were also published by the Environmental Protection Agency, EPA 560-10-78/002, July 1978.

(3) Third Report of the TSCA Interagency Testing Committee to the Administrator, Environmental Protection Agency, TSCA Interagency Testing Committee, October 1978. Published in the *Federal Register* of Monday, October 10, 1978, 43 FR 50630-50635. The report and supporting dossiers were also published by the Environmental Protection Agency, EPA 560-10-79/001, January 1979.

(4) Fourth Report of the TSCA Interagency Testing Committee to the Administrator, Environmental Protection Agency, TSCA Interagency Testing Committee, April 1979. Published in the *Federal Register* of Friday, June 1, 1979, 44 FR 31866-31889.

(5) Fifth Report of the TSCA Interagency Testing Committee to the Administrator, Environmental Protection Agency, TSCA Interagency Testing Committee, November 1979. Published in the *Federal Register* of Friday, December 7, 1979, 44 FR 70664-70674.

(6) Sixth Report of the TSCA Interagency Testing Committee to the Administrator, Environmental Protection Agency, TSCA Interagency Testing Committee, April 1980. Published in the *Federal Register* of Wednesday, May 28, 1980, 45 FR 35897-35910.

(7) Seventh Report of the TSCA Interagency Testing Committee to the Administrator, Environmental Protection Agency, TSCA Interagency Testing Committee, October 1980. Published in the *Federal Register* of Tuesday, November 25, 1980, 45 FR 78432-78446.

(8) Eighth Report of the TSCA Interagency Testing Committee to the Administrator, Environmental Protection Agency, TSCA Interagency Testing Committee, April 1981. Published in the *Federal Register* of Friday, May 22, 1981, 46 FR 28138-28144.

(9) Ninth Report of the TSCA Interagency Testing Committee to the Administrator, Environmental Protection Agency, TSCA Interagency Testing Committee, October 1981. Published in the *Federal Register* of Friday, February 5, 1982, 47 FR 5456-5463.

(10) Tenth Report of the TSCA Interagency Testing Committee to the Administrator, Environmental Protection Agency, TSCA Interagency Testing Committee, April 1982. Published in the *Federal Register* of Tuesday, May 25, 1982, 47 FR 22585-22586.

(11) Eleventh Report of the TSCA Interagency Testing Committee to the Administrator, Environmental Protection Agency, TSCA Interagency Testing Committee, October 1982. Published in the *Federal Register* of Friday, December 3, 1982, 47 FR 54625-54644.

(12) Twelfth Report of the TSCA Interagency Testing Committee to the Administrator, Environmental Protection Agency, TSCA Interagency Testing Committee, May 1983. Published in the *Federal Register* of Wednesday, June 1, 1983, 48 FR 24443-24452.

(13) Thirteenth Report of the TSCA Interagency Testing Committee to the Administrator, Environmental Protection Agency, TSCA Interagency Testing Committee, November 1983. Published in the *Federal Register* of Wednesday, December 14, 1983, 48 FR 55674-55684.

(14) Fourteenth Report of the TSCA Interagency Testing Committee to the Administrator, Environmental Protection Agency, TSCA Interagency Testing Committee, May 1984. Published in the *Federal Register* of Tuesday, May 29, 1984, 49 FR 22389-22407.

(15) Fifteenth Report of the TSCA Interagency Testing Committee to the Administrator, Environmental Protection Agency, TSCA Interagency Testing Committee, November 1984. Published in the *Federal Register* of Thursday, November 29, 1984, 49 FR 46931-46949.

Chapter 2—Recommendations of the Committee

2.1 *Chemicals recommended for priority consideration by the EPA Administrator.* As provided by section 4(e)(1)(B) of TSCA, the Committee is adding the following five chemical substances to the section 4(e) Priority List: methylcyclopentane; tetrabromobisphenol A; triethylene glycol monomethyl ether; triethylene glycol monoethyl ether; and triethylene

glycol monobutyl ether. The recommendation of these chemicals is being made after considering the factors identified in section 4(e)(1)(A) and other available relevant information, as well as the professional judgment of Committee members.

The five recommendations designated for response by the EPA Administrator within 12 months are grouped as follows: methylcyclopentane, tetrabromobisphenol A, and triethylene glycol monoethers (monomethyl ether, monoethyl ether, and monobutyl ether). The specific testing recommendations and supporting rationales are presented in section 2.2 of this report.

2.2. Chemicals designated for response within 12 months with supporting rationales.

2.2.a Methylcyclopentane (9 CI).

Summary of recommended studies. It is recommended that methylcyclopentane be tested for the following:

Health effects:

Chronic toxicity studies including neurotoxicity, cardiotoxicity, and oncogenicity

Genotoxicity

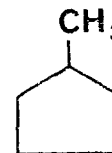
Reproductive and teratogenic effects

Physical and Chemical Information

CAS Number: 96-37-7.

Synonyms: Methylpentamethylene.

Structural Formula:



Empirical Formula: C₆H₁₂.

Molecular Weight: 84.

Melting Point: -112.4 °C

Boiling Point: 71.7 °C

Vapor Pressure: 233 mmHg at 38°

Specific Gravity: 0.754 (15.5/15.5 °C)

Solubility in Water: 2.0 mg/L

(estimated; Ref. 10, Lyman et al., 1982);

however, it may be as much as 50 mg/L (Ref. 15, Sauer, 1981).

Solubility in Organic Solvents: Soluble in Alcohol, acetone, benzene, ether, carbon tetrachloride, and petroleum ether.

Log Octanol/Water Partition Coefficient: 3.53 (estimated; Ref. 10, Lyman et al., 1982).

Description of Chemical: Flammable, colorless liquid with sweetish odor.

Rationale for Recommendations

I. Exposure Information

A. Production/use.

Methylcyclopentane is currently produced by only one domestic manufacturer (Ref. 16, SRI, 1983). The material is sold as products composed largely of methylcyclopentane and as a constituent (7-15 percent) of a hexane solvent stream (Ref. 14, Phillips, 1984). Another manufacturer produces approximately 20,000 pounds of the compound annually as a byproduct in the manufacture of a high-energy fuel (Ref. 2, Ashland, 1983).

Methylcyclopentane can be used as an extraction solvent, an azeotropic distillation agent, and as a chemical intermediate (Ref. 7, Hawley, 1977). It is also used as an unseparated component of solvent mixtures for cellulose ethers and esters, resins, waxes, fats and oils, bitumen and rubber, polyethylene, and paint removers.

The compound occurs naturally in crude oil (approximately 0.8 percent) and natural gas liquids. It is also produced incidentally during the catalytic cracking and pyrolysis of crude oils and occurs in various refinery process streams. In finished gasoline, the volume percent of methylcyclopentane may vary from 0.4 to 3.15 (Ref. 1, API, 1984).

B. Evidence for exposure.

Methylcyclopentane has been detected in workplace air samples. For example, it was identified in air samples in a shoe factory (Refs. 5, 13, 4, and 17, Brugnone et al., 1979; Perbellini et al., 1980; Brugnone and Perbellini, 1980; Zappoli et al., 1979). The National Occupational Hazard Survey conducted by NIOSH during 1972-74 estimated that 1,058,617 people in 53 industries were exposed to methylcyclopentane in the workplace in 1970 (Ref. 11, NIOSH, 1976). No threshold limit values were reported for the compound, but levels in most plants are expected to be low, on the order of <1 ppm on an 8-hour time/weighted average basis (Ref. 14, Phillips, 1984).

Methylcyclopentane has been found in air samples (urban and rural) and marine water samples, suggesting the possibility of widespread dispersal or

emission from natural sources (Refs. 8, 3, and 9, Holzer et al., 1977; Bertsch et al., 1974; Koons, 1977).

II. Chemical Fate Information

A. Partitioning. Due to its high volatility and relatively low water solubility, methylcyclopentane is expected to partition chiefly into the atmosphere. Although some monitoring studies resulted in the detection of methylcyclopentane in aqueous media, concentrations were much lower than those found in atmospheric testing. Based on the reactivity scale of Darnall et al. (Ref. 6, 1976), it is expected that methylcyclopentane would rapidly degrade in the atmosphere, exhibiting a $t_{1/2}$ of under 24 hours as a consequence of reaction with atmospheric hydroxyl radicals.

B. Bioconcentration. Although the estimated log P of 3.53 indicates some potential for bioconcentration, methylcyclopentane's high volatility would preclude the opportunity for appreciable bioconcentration to take place.

III. Biological Effects of Concern to Human Health

A. Metabolism. No information was found. However, by analogy with cyclohexane, it is possible that methylcyclopentane could undergo oxidative changes of the cyclopentane ring. There could also be oxidation (hydroxylation) of the ring followed by conjugation and excretion as a glucuronide conjugate.

B. Carcinogenicity. No information was found.

C. Genotoxicity. No information was found.

D. Reproduction effects, teratogenicity, and embryotoxicity. No information was found.

E. Toxicity—1. Acute—A minimum lethal atmospheric level for mice was 95 mg/L. No other studies were found. When tested for neurotoxicity by oral administration in rats under the conditions where hexane had a pronounced action, methylcyclopentane showed only a slight effect (Ref. 12, Ono et al., 1981).

2. Subchronic—After administration by gavage at 0.5 or 2.0 g/kg to male F344 rats for 4 weeks, methylcyclopentane apparently did not exert a nephrotoxic action (Ref. 1, API, 1984).

F. Rationale for health effects recommendations. The possibility of exposure of the general population to methylcyclopentane through its use in solvent mixtures and thinners is high. In addition, its presence in gasoline adds to the concern. Although data are available on exposure to the compound

via the oral route, these may not be relevant, since the general population would more likely be exposed to the compound by inhalation, an area where data are lacking. Since there is potential for exposure, studies of the possible chronic toxicity, genotoxic effects, and reproductive and teratogenic effects of methylcyclopentane are needed.

IV. Ecological Effects.

No information was found. Since methylcyclopentane is expected to partition into the atmosphere where it would degrade rapidly, environmental testing is not being recommended.

References

- (1) API. 1984. American Petroleum Institute. Unpublished information on production, exposure, and nephrotoxicity of methylcyclopentane submitted by W.F. O'Keefe, API, July 20, 1984.
- (2) Ashland. 1983. Unpublished information on the production and use of methylcyclopentane submitted by R.H. Toeniskoetter, Ashland Chemical Co. December 13, 1983.
- (3) Bertsch W, Chang RC, Zlatkis A. 1974. The determination of organic volatiles in air pollution studies: Characterization of profiles. *J. Chromatogr. Sci.* 12(4):175-182.
- (4) Brugnone F, Perbellini F. 1980. Pollution by solvents and assembly line jobs in the shoe and upper shoe factories. *Med. Lav.* 71(4): 343-352.
- (5) Brugnone F, Perbellini L, Grigolini L, Apostoli P. 1979. Solvent exposure in an upper shoe factory. II. Methylcyclopentane, 2-methylpentane, and 3-methylpentane concentration in alveolar and in environmental air and in blood. *Int. Arch. Occup. Environ. Health* 42:355-363.
- (6) Darnall KR, Lloyd AC, Winer AM, Pitts JN. 1976. Reaction-mechanism of atmospheric hydrocarbons based on reaction with hydroxyl radical. *Environ. Sci. Technol.* 10(7):692-696.
- (7) Hawley GG. 1977. The Condensed Chemical Dictionary, 9th ed. New York: Van Nostrand Reinhold Co. p. 566.
- (8) Holzer G, Shanfield H, Zlatkis A, Bertsch W, Juarez P, Mayfield H, Liebich HM. 1977. Collection and analysis of trace organic emissions from natural sources. *J. Chromatogr.* 142:755-764.
- (9) Koons CB. 1977. Distribution of volatile hydrocarbons in some Pacific Ocean waters. Washington, DC: American Petroleum Institute. Publ. No. 4284. Proceedings of the 1977 Oil Spill Conference (Prevention, Behavior, Control, Cleanup), March 8-10, 1977. pp. 589-591.
- (10) Lyman WJ, Reehl WF, Rosenblatt DH. 1982. Handbook of Chemical Property Estimation Methods. New York: McGraw-Hill Book Co. Chapters 1 and 2.
- (11) NIOSH. 1976. National Occupational Hazard Survey (1972-74). Cincinnati OH: Department of Health and Human Services, National Institute for Occupational Safety and Health.
- (12) Ono Y, Takeuchi Y, Hisanga N. 1981. A comparative study on the toxicity on n-

hexane and its isomers on the peripheral nerve. *Inst. Arch. Occup. Environ. Health* 48:289-294.

(13) Perbellini L, Brugnone F, Pavan J. 1980. Identification of the metabolites of *n*-hexane, cyclohexane, and their isomers in men's urine. *Toxicol. Appl. Pharmacol.* 53(2):220-229.

(14) Phillips. 1984. Phillips Petroleum Co. Unpublished information on the production, use, and occupational exposure of methylcyclopentane and Material Safety Data Sheet submitted by J.J. Moon, Phillips Petroleum Co. January 12, 1984.

(15) Sauer TC. 1981. Volatile liquid hydrocarbon characterization of underwater hydrocarbon vents and formation waters from offshore production operations. *Environ. Sci. Technol.* 15(8):917-923.

(16) SRI. 1983. Directory of Chemical Producers, USA, 1983. Stanford Research Institute, Menlo Park, CA: SRI International. p. 731.

(17) Zappoli R, Guiliano G, Rossi L et al. 1979. CNV and SEP in shoe-industry workers affected by neuropathy due to toxic effects of adhesive solvents. *Riv. Patol. Nerv. Ment.* 100(4):189-200.

2.2.b Tetrabromobisphenol A.

Summary of recommended studies. It is recommended that tetrabromobisphenol A be tested for the following:

A. Chemical Fate:

Water solubility
Soil adsorption coefficient
Persistence

B. Ecological Effects:

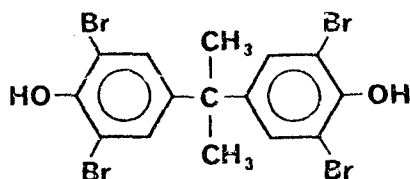
Acute and chronic toxicity to fish, aquatic, invertebrates, and algae
Bioconcentration potential in fish

Physical and Chemical Information

CAS Number: 79-94-7.

Synonyms: Phenol, 4,4'-(1-methylethylidene)-bis[2,6-dibromo-(9 CI); 2,2-Bis(3,5-dibromo-4-hydroxyphenyl)propane; TBBPA

Structural Formula:



Empirical Formula: $C_{15}H_{12}Br_4O_2$.

Molecular Weight: 544.

Melting Point: 181 °C.

Boiling Point: 316 °C with decomposition.

Vapor Pressure: No information was found.

Specific Gravity: 2.12 at 25 °C (Ref. 2, Ethyl Corp., 1984).

Water Solubility: <0.1 g/L at 25 °C. 2 mg/L (estimated; Ref. 11, Lyman et al., 1982).

Log Octanol/Water Partition Coefficient: 4.5 (Ref. 15, Velsicol, 1978a).

Rationale for Recommendations

I. Exposure Information

A. Production/use/release. The current production volume of tetrabromobisphenol A (TBBPA) is not publicly available, but there appear to be at least two manufacturers of the compound (Refs. 3, 4, and 2, Great Lakes, 1983a, 1983b; Ethyl Corp., 1984). A new plant with an annual production capacity of 15 million pounds has recently been completed (Ref. 1, Chemical Purchasing, 1983). In 1983, 1.45 millions pounds of TBBPA were imported (Ref. 13, USITC, 1984).

TBBPA is used primarily as a reactive flame retardant in the manufacture of epoxy resins and polycarbonates (Refs. 8 and 10, Kirk-Othmer, 1980a, 1982). It is used in the manufacture of printed circuit boards and as an additive flame retardant for styrene thermoplastics such as ABS and high-impact polystyrene (Refs. 9 and 3, Kirk-Othmer, 1980b; Great Lakes, 1983a). TBBPA is also used as a flame retardant in paper and textile applications and as plasticizer (Refs. 6 and 7, Hawley, 1977; Inouye et al., 1979).

Based on the relatively high expected production volume and the reported importation volume, substantial releases of TBBPA to the aquatic environment at production and use sites are likely, especially where it is used as an additive flame retardant.

B. Evidence for exposure. TBBPA was found in sediment samples collected from four sites in the vicinity of a company manufacturing the compound (Ref. 18, Zweidinger et al., 1979). The concentrations at these sites ranged from 0.30 to 330 mg/kg. TBBPA was also found in river sediments collected near Osaka, Japan (Ref. 18, Watanabe et al., 1983). Although 20 ppb were found in the sediments, the compound was not detected in mussels collected from Osaka Bay.

II. Chemical Fate Information

A. Transport. Based on a log P of 4.5, most of the TBBPA released to the environment is expected to sorb onto sediments and organic matter. TBBPA is expected to be transported via suspended matter as well as in the water column of receiving streams.

B. Persistence. No information was found.

C. Rationale for chemical fate recommendations. Definitive test data on the water solubility, soil adsorption coefficient, and persistence of TBBPA are needed to quantify its partitioning,

persistence, and bioavailability in the natural environment. These data are also needed in order to design appropriate ecotoxicity tests.

III. Biological Effects of Concern to Human Health

TBBPA has been tested for acute and subchronic toxicity by the oral and inhalation routes of exposure and has been found to have a low level of toxicity; e.g., the acute oral LD₅₀ for the rat was greater than 50 g/kg (Ref. 5, Great Lakes, 1984).

Microbial genotoxicity tests with TBBPA have been negative (Ref. 5, Great Lakes, 1984). The compound was negative in four strains of *Salmonella* when tested both with and without metabolic activation (Ref. 12, NTP, 1983).

Due to expected low human exposure potential, the compound is not being recommended for health effects testing at this time.

IV. Ecological Effects of Concern

A. Acute effects. The 96-hour LC₅₀'s for TBBPA with bluegill and rainbow trout were 0.51 and 0.40 mg/L, respectively (Ref. 16, Velsicol, 1978b).

B. Chronic effects. No information was found.

C. Bioconcentration. Based on a reported log P of 4.5, the bioconcentration factor in fish using the equation of Veith et al. (Ref. 14, 1979) is approximately 1,300.

D. Rationale for ecological effects recommendations. The available data indicate that TBBPA is highly toxic to fish under acute conditions. Data on the compound's acute toxicity to aquatic invertebrates and algae are also needed. The data from the rainbow trout test demonstrate that fish mortality increased throughout the duration of the test and, if the test had continued, mortalities may have occurred at even lower concentrations. Based on this information, TBBPA is expected to be chronically toxic to fish and aquatic invertebrates at very low concentrations; i.e., <0.10 mg/L. Based on the high log P of 4.5, tests with fish should be performed to accurately measure the bioconcentration potential of TBBPA.

Chronic tests with sensitive, sediment-dwelling organisms are also needed if the chemical fate tests demonstrate that TBBPA partitions mainly to sediments and persists there. Microcosm tests with different types of sediments may be appropriate for this compound.

References

- (1) Chemical Purchasing. 1983. Chemical Supply Lines: "Ethyl slates bromine products facility; completes second antioxidant plant." In: Chemical Purchasing for Chemical Buyers in the Process Industries, January 1983. p. 11, col. 1.
- (2) Ethyl Corp. 1984. Published and unpublished information on the physical properties, production, exposure, and toxicity of tetrabromobisphenol A submitted by R.L. Smith, Ethyl Corp. February 29, 1984.
- (3) Great Lakes. 1983a. Unpublished information on TBBPA submitted by D.L. McFadden, Great Lakes Chemical Corp. August 10, 1983.
- (4) Great Lakes. 1983b. Unpublished information on TBBPA submitted by J.A. Garman, Great Lakes Chemical Corp. December 13, 1983.
- (5) Great Lakes. 1984. Unpublished information on TBBPA submitted by D.L. McFadden, Great Lakes Chemical Corp. January 11, 1984.
- (6) Hawley GG. 1977. The Condensed Chemical Dictionary, 9th ed. New York: Van Nostrand Reinhold Co.
- (7) Inouye B, Katayama Y, Ishida T, Ogata M, Utsumi K. 1979. Effects of aromatic bromine compounds on the function of biological membranes. Toxicol. Appl. Pharmacol. 48:467-478.
- (8) Kirk-Othmer. 1980a. Kirk-Othmer Encyclopedia of Chemical Technology. 3rd ed. Vol. 10. New York: John Wiley & Sons, Inc. pp. 389-390.
- (9) Kirk-Othmer. 1980b. Kirk-Othmer Encyclopedia of Chemical Technology. 3rd ed. Vol. 9. New York: John Wiley & Sons, Inc. p. 276.
- (10) Kirk-Othmer. 1982. Kirk-Othmer Encyclopedia of Chemical Technology. 3rd ed. Vol. 18. New York: John Wiley & Sons, Inc. pp. 490-492.
- (11) Lyman WJ, Reehl WF, Rosenblatt DH. 1982. Handbook of Chemical Property Estimation Methods. New York: McGraw-Hill Book Co. Chapter 2.
- (12) NTP. 1983. National Toxicology Program. NTP status on tetrabromobisphenol A submitted by D. Canter, ITC. November 17, 1983.
- (13) USITC. 1984. U.S. International Trade Commission. Imports of Benzenoid Chemicals and Products, 1983. Publ. No. 1548. Washington, DC: U.S. Govt. Printing Office.
- (14) Veith GD, DeFoe DL, Bergstedt BV. 1979. Measuring and estimating the bioconcentration factor of chemicals in fish. J. Fish Res. Board Can. 36:1040-1048.
- (15) Velsicol. 1978a. Unpublished information on the partition coefficient of tetrabromobisphenol A submitted by T.R. Loy, Velsicol Chemical Corp. March 31, 1978.
- (16) Velsicol. 1978b. Unpublished information on the acute toxicity of tetrabromobisphenol A submitted by T.R. Loy, Velsicol Chemical Corp. May 1, 1978.
- (17) Watanabe I, Kashimoto T, Tatsukawa R. 1983. Identification of the flame retardant tetrabromobisphenol A in the river sediment and the mussel collected in Osaka. Bull. Environ. Contam. Toxicol. 31:48-52.
- (18) Zweidinger RA, Cooper SD, Pellizzari ED. 1979. Identification and quantitation of brominated flame retardants. ASTM Spec. Tech. Publ. No. 686. pp. 234-250.

2.2.c Triethylene glycol monoethers.

Summary of recommended studies. It is recommended that the triethylene glycol monoethers (triethylene glycol monomethyl ether, triethylene glycol monobutyl ether, and triethylene glycol monobutyl ether) be tested for the following:

Health Effects:

Toxicokinetic (absorption, distribution, and excretion) and metabolic studies
Additional testing conditional upon results of toxicokinetic and metabolic studies:

- Subchronic studies with emphasis on hematologic effects.
- Reproductive and developmental toxicity studies.

Physical and Chemical Information

1. Compound: Triethylene glycol monomethyl ether (MTri).

CAS Number: 112-35-6.

Synonyms: 2-[2-(2-Methoxyethoxy)ethoxy]-ethanol (9 CI); Triglycolmonomethyl ether; Methoxytriethylene glycol; Methoxytriglycol.

Structural Formula: $\text{CH}_3\text{—O—C}_2\text{H}_4\text{—O—C}_2\text{H}_4\text{—O—C}_2\text{H}_4\text{—OH}$.

Empirical Formula: $\text{C}_7\text{H}_{16}\text{O}_4$.

Molecular Weight: 164.2.

Melting Point: -38.2°C .

Boiling Point: 249°C .

Vapor Pressure: <0.01 mmHg at 20°C .

Specific Gravity: 1.053 at 20/20 (Ref. 15, Union Carbide, 1981).

Solubility in Water: Completely soluble.

Solubility in Organic Solvents: Soluble in acetone, benzene, ethyl ether, methanol, and carbon tetrachloride.

Log Octanol/Water Partition Coefficient: -1.12 (estimated; Ref. 8, Leo et al., 1971).

Description of Chemical: Colorless liquid.

2. Compound: Triethylene glycol monobutyl ether (ETri).

CAS Number: 112-50-5.

Synonyms: 2-[2-(2-Ethoxyethoxy)ethoxy]-ethanol (9 CI); Ethoxytriglycol; Triglycol monomethyl ether; Ethoxytriethylene glycol.

Structural Formula: $\text{C}_2\text{H}_5\text{—O—C}_2\text{H}_4\text{—O—C}_2\text{H}_4\text{—O—C}_2\text{H}_4\text{—OH}$.

Empirical Formula: $\text{C}_8\text{H}_{18}\text{O}_4$.

Molecular Weight: 178.

Melting Point: -19 to -21°C (Refs. 16 and 11, Union Carbide, 1985; Olin, 1983).

Boiling Point: 256.5°C .

Vapor Pressure: <0.01 mmHg at 25°C .

Specific Gravity: 1.021 at 25/25.

Solubility in Water: Miscible.

Solubility in Organic Solvents: Soluble in acetone, benzene, ethyl ether, methanol, and carbon tetrachloride.

Log Octanol/Water Partition Coefficient: -0.62 (estimated; Ref. 8, Leo et al., 1971).

Description of Chemical: Colorless liquid.

3. Compound: Triethylene glycol monobutyl ether (BTri).

CAS Number: 143-22-6.

Synonyms: 2-[2-(2-

Butoxyethoxy)ethoxy]-ethanol (9 CI); Butoxytriglycol; Triglycol monobutyl ether; Butoxytriethylene glycol.

Structural Formula: $\text{C}_4\text{H}_9\text{—O—C}_2\text{H}_4\text{—O—C}_2\text{H}_4\text{—O—C}_2\text{H}_4\text{—OH}$.

Empirical Formula: $\text{C}_{10}\text{H}_{22}\text{O}_4$.

Molecular Weight: 206.28

Melting Point: -47.6°C .

Boiling Point: Decomposes.

Vapor Pressure: <0.01 mmHg at 20°C .

Specific Gravity: 1.0021 at $20/20^\circ\text{C}$.

Solubility in Water: Completely soluble.

Solubility in Organic Solvents: Soluble in heptane, acetone, benzene, ethyl ether, methanol, and carbon tetrachloride.

Log Octanol/Water Partition Coefficient: -0.38 (estimated; Ref. 8, Leo et al., 1971).

Description of Chemical: Water-white liquid with mild, characteristic odor (Ref. 15, Union Carbide, 1981).

Rationale for Recommendations

I. Exposure Information

A. Production/use/release. The 1983 production volume data on the triethylene glycol monoethers are summarized below (Ref. 17, USITC, 1984):

MTri—24.9 million pounds

ETri—22.5 million pounds

BTri—8.4 million pounds

Consumption of the three triethylene glycol monoethers totaled approximately 40 million pounds in 1980 and 47 million pounds in 1977. It is expected that domestic consumption of these compounds will rise to 53 million pounds in 1985 (Ref. 3, CEH, 1981).

The triethylene glycol monoethers are solvents used primarily in the formulation of automotive hydraulic brake fluids, constituting about 40-60 percent of these products. They can also be used as components of cleaners and cutting oils, as additives in de-icing compounds, and as intermediates in the production of specialty plasticizers and antidusting agents for finely powdered materials (Refs. 3, 11, 12, and 16, CEH, 1981; Olin, 1983, 1984; Union Carbide, 1985).

Most of the uses of the triethylene glycol monoethers are expected to lead to their eventual but dispersed release to the natural environment. Some minor

fraction may be consumed as chemical intermediates or destroyed during use (e.g., as a jet fuel additive).

B. Evidence for exposure. The National Occupational Hazard Survey conducted by NIOSH during 1972-74 estimated that 80,404, 81,218, and 17,644 workers were potentially exposed to MTri, ETri, and BTri, respectively, in the workplace in 1970 (Ref. 9, NIOSH, 1976). Preliminary data from the more recent National Occupational Exposure Survey conducted during 1980-83 indicated that 248,333 workers (including 8,103 females) were potentially exposed to brake fluids in the workplace in 1980 (Ref. 10, NIOSH, 1984). No information was found on environmental exposures to the compounds.

II. Chemical Fate Information

A. Transport. Because of their miscibility with water, low vapor pressures, and low estimated octanol/water partition coefficients, the triethylene glycol monoethers are expected to partition mostly to water.

B. Persistence. Based on their water solubility, the triethylene glycol monoethers are expected to undergo primary biodegradation in aerobic surface waters and complete biodegradation in anaerobic environments at moderate rates, with half-lives of 1-3 weeks. If they were to be present at concentrations of hundreds of mg/L (e.g., as a result of a spill), they could be toxic to the degrader micro-organisms and persist until diluted to a degradable concentration. At more normal concentrations, they could also undergo free-radical oxidations to peroxides in sunlit waters, but biodegradation is expected to be the dominant transformation process.

C. Rationale for chemical fate recommendations. The triethylene glycol monoethers are not expected to partition into air, sediments, or biota. They are expected to reside primarily in aquatic environments where they would have relatively short half-lives due to biodegradation.

III. Biological Effects of Concern to Human Health

A. Toxicokinetics (absorption, distribution, and excretion). No information was found. However, tests on structurally similar monoethylene glycol ethers have shown extremely rapid absorption through human skin (Ref. 6, EPA, 1984).

B. Genotoxicity. No information was found.

C. Short-term (acute) effects. Based on available animal data, the triethylene glycol monoethers are expected to have

a low order of acute toxicity (Refs. 4 and 5, EPA, 1982a, 1982b).

D. Long-term (subchronic/chronic) effects. Rats were maintained for 30 days on drinking water containing ETri, resulting in a daily intake ranging from 0.18 to 3.30 g/kg. The maximum intake having no effect was 0.75 g/kg/day, but the study did not give details of the effects at higher dose levels. The highest dose produced micropathologic effects in the liver, kidneys, spleen, or testes (Ref. 14, Smyth and Carpenter, 1948).

No additional information was found on MTri, ETri, or BTri. Subchronic tests conducted on structurally similar monoethylene glycol ethers (methyl, ethyl, and butyl) demonstrate hemopoietic effects in laboratory animals, including human effects in the case of MTri. These effects were generally reversible over time after cessation of exposure (Refs. 4, 5, and 7, EPA, 1982a, 1982b; Grant et al., in press).

1. **Neurotoxicity**—No information was found.

2. **Behavioral**—No information was found.

3. **Oncogenicity**—No information was found.

4. **Other chronic effects**—No information was found.

E. Reproductive and developmental toxicity. No information was found on the triethylene glycol monoethers. However, the developmental effects of the 2-methoxyethanol and 2-ethoxyethanol glycol ethers have been studied in many species, by various routes, and at many exposure levels. The results show fetal malformations, fetal deaths, and growth retardation. In addition, they caused testicular damage in several mammalian species (Refs. 4 and 5, EPA, 1982a, 1982b).

F. Rationale for health effects recommendations. There is a potential for human exposure to these compounds. The large quantities produced and most of the uses of the triethylene glycol ethers are expected to lead to eventual human exposure. The most likely route of exposure is via skin absorption. In view of the lack of information on the health effects of these substances and the adverse hematologic, developmental, and testicular effects of related monoethylene glycol ethers, testing is needed to determine if the larger triethylene glycol ethers are absorbed as a result of dermal exposure. All of the monoethylene glycol ethers are rapidly absorbed through the skin, but the degree and rate of absorption for the triethylene glycol ethers have not been determined. Testing to determine the degree of absorption and the nature of the metabolic products is needed.

Subchronic studies, with emphasis on hematologic effects, and reproductive and developmental toxicity studies should be conducted if the toxicokinetic and metabolic studies show that the triethylene glycol ethers are absorbed.

IV. Ecological Effects of Concern

The 24-hour LC₅₀ of ETri for goldfish (*Carrassius auratus*) was greater than 5,000 mg/L (Ref. 1, Bridie et al., 1979), while that of triethylene glycol for brine shrimp was greater than 10,000 mg/L (Ref. 13, Price et al., 1974). Acute toxicity tests with animals indicate that the triethylene glycol monoethers are relatively innocuous at low doses. Although the data are sparse, there is no indications that the triethylene glycol monoethers will produce adverse effects at expected environmental concentrations.

References

- (1) Bridie AL, Wolff CJM, Winter M. 1979. The acute toxicity of some petrochemicals to goldfish. *Water Res.* 13(7):623-628.
- (2) Browning E. 1965. *Toxicology and Metabolism of Industrial Solvents*. New York: Elsevier Publishing Co. p. 678.
- (3) CEH. 1981. *Chemical Economics Handbook*. Stanford Research Institute. Menlo Park, CA: SRI International. Sections 663. 5021A-5022T.
- (4) EPA. 1982a. PLR-1. 2-Methoxyethanol. Washington, DC: Environmental Protection Agency, Office of Toxic Substances.
- (5) EPA. 1982b. PRL-2. 2-Ethoxyethanol. Washington, DC: Environmental Protection Agency, Office of Toxic Substances.
- (6) EPA. 1984. Risk assessment of glycol ethers. Washington, DC: Environmental Protection Agency, Risk Assessment Branch.
- (7) Grant D, Sulsh S, Jones HB, Gangolli SD, Butler WH. Acute toxicity and recovery in the haemopoietic system of rats after treatment with ethylene glycol monomethyl and monobutyl ethers. *Toxicol. Appl. Pharmacol.* (in press).
- (8) Leo A, Hansch C, Elkins D. 1971. Partition coefficients and their uses. *Chem. Revs.* 71(6):525-615.
- (9) NIOSH. 1976. National Occupational Hazard Survey (1972-74). Cincinnati, OH: Department of Health and Human Services, National Institute for Occupational Safety and Health.
- (10) NIOSH. 1984. National Occupational Exposure Survey (1980-83). Cincinnati, OH: Department of Health and Human Services, National Institute for Occupational Safety and Health.
- (11) Olin. 1983. Olin Corp. Technical bulletin on Poly-Solv® glycol ethers submitted by N.J. Barone, Olin Corp. August 28, 1984.
- (12) Olin. 1984. Olin Corp. Published and unpublished data on the production, use, occupational exposure, and toxicity of tri- and tetraethylene glycol monoethers submitted by N.J. Barone, Olin Corp. August 28, 1984.
- (13) Price KS, Waggy GT, Conway RA. 1974. Brine shrimp bioassay and seawater

BOD of petrochemicals. J. Water Pollut. Control Fed. 46:63-77.

(14) Smyth, Jr. HF, Carpenter, CP. 1948. Further experience with the range finding test in the industrial toxicology laboratory. J. Ind. Hyg. Toxicol. 30:63-68.

(15) Union Carbide. 1981. Union Carbide Corp. Material Safety Data Sheets on triethylene glycol monomethyl ether and triethylene glycol monobutyl ether.

(16) Union Carbide. 1985. Unpublished information on the production and use of the tri- and tetraethylene glycol monoethers provided by M. Finch, Union Carbide Corp. February 15, 1985.

(17) USITC. 1984. U.S. International Trade Commission. Synthetic Organic Chemicals, U.S. Production and Sales, 1983. USITC Publ. No. 1588, Washington, DC: U.S. Govt. Printing Office.

[FR Doc. 85-12188 Filed 5-20-85; 8:45 am]

BILLING CODE 6560-50-M

FEDERAL COMMUNICATIONS COMMISSION

[CC Docket No. 80-634]

Changes in the Corporate Structure and Operations of the Communications Satellite Corporation

AGENCY: Federal Communications Commission.

ACTION: Report and Order; Correction.

SUMMARY: The Report and Order in this proceeding adopting modifications to the annual Form M and monthly Form 901 financial reports which Comsat is required to submit to the Commission was published in 50 FR 18304 (April 30, 1985). The Order as published omitted footnote 18 and certain language in the sixth and seventh sentences of paragraph 23. These errata are indicated below.

FOR FURTHER INFORMATION CONTACT: Glenn E. deChabert, International Policy Division, Common Carrier Bureau, Federal Communications Commission, Washington, D.C. 20554, (202) 632-4047.

SUPPLEMENTARY INFORMATION:

ERRATUM

In the Matter of Changes in the corporate structure and operations of the Communications Satellite Corporation; CC Docket No. 80-634.

Released: May 10, 1985.

1. In the *Report and Order*, FCC 85-178, Mimeo No. 35674, released April 19, 1985, footnote 18 (cited in paragraph 18) and certain language adopted by the Commission in paragraph 23 were inadvertently omitted.

2. Footnote 18 is inserted as follows: "See Appendix A, Chart 3."

3. The sixth and seventh sentences of paragraph 23 are amended as follows:

Given this rush of events, we find that all of the above activities, which may be described as "competitive" common carrier activities (including those common carrier services which are to be provided through Comsat's proposed new end-to-end and earth station subsidiary), must be reflected in the aggregate "other nonjurisdictional" categories included on Comsat's annual and monthly Balance Sheet, Statement of Income and Home Office Costs schedules. Moreover, we shall require that Comsat account for these specific "competitive" common carrier activities individually in a separate breakout of each of the "other nonjurisdictional" line items in Comsat's revised annual and monthly reports.

Federal Communications Commission.

William J. Tricarico,

Secretary.

[FR Doc. 85-12115 Filed 5-20-85; 8:45 am]

BILLING CODE 6712-01-M

FEDERAL MARITIME COMMISSION

Agreement(s) Filed

The Federal Maritime Commission hereby gives notice of the filing of the following agreement(s) pursuant to section 5 of the Shipping Act of 1984.

Interested parties may inspect and obtain a copy of each agreement at the Washington, D.C. Office of the Federal Maritime Commission, 1100 L Street, N.W., Room 10325. Interested parties may submit comments on each agreement to the Secretary, Federal Maritime Commission, Washington, D.C. 20573, within 10 days after the date of the *Federal Register* in which this notice appears. The requirements for comments are found in § 572.603 of Title 46 of the Code of Federal Regulations. Interested persons should consult this section before communicating with the Commission regarding a pending agreement.

Agreement No.: 224-002969-003.

Title: Long Beach Terminal Agreement.

Parties: The City of Long Beach (City) Exxon Corporation (Exxon).

Synopsis: The basic agreement, as amended leases certain land areas to Exxon for a tank farm, etc., preferentially assigns certain berthing areas, and grants pipeline licenses for construction and operation of shoreside bunkering lines throughout the Port of Long Beach. Agreement No. 224-002969-003 amends the basic agreement by modifying the description of the licensed premises to include an additional pipeline; modifies certain provisions relating to all the pipelines installed

within the licensed premises; amends the permitted uses allowing Exxon to provide bulk terminalling services for third parties; restructures the compensation provisions to provide a single compensation for all the leased, assigned and licensed premises.

Agreement No.: 221-003463-002.

Title: Galveston Terminal Agreement.

Parties: Far-Mar-Co., Inc. (Far-Mar) Union Equity Co-Operative Exchange (Union).

Synopsis: Agreement No. 221-003463-002 provides that Far-Mar will assign its interest under original Agreement No. T-3463 to Union. The facility involved, located in the Port of Galveston, is to be used for the warehousing, storing, marketing, conditioning and shipping of wheat and milo. The parties have requested a shortened review period for the agreement.

By Order of the Federal Maritime Commission.

Dated: May 16, 1985.

Bruce A. Dombrowski,

Acting Secretary.

[FR Doc. 85-11967 Filed 5-20-85; 8:45 am]

BILLING CODE 6730-01-M

Petition of Concorde/Nopal for Issuance of Rules To Meet or Adjust Conditions Unfavorable to Trade in the U.S./Venezuela Trade; Order of Dismissal

By Petition filed January 23, 1985, Concorde/Nopal Line requested the Commission to issue rules pursuant to section 19(1)(b) of the Merchant Marine Act of 1920, (46 U.S.C. 876(a)(b)) to meet or adjust conditions unfavorable to shipping in the United States trades with Venezuela. Concorde/Nopal alleged that conditions unfavorable to shipping exist in those trades as a result of the existence and enforcement of cargo reservation laws and decrees and currency exchange decrees promulgated by the Government of Venezuela. The Department of State was informed on January 30, 1985 of the filing of the Petition and that the Commission intended to institute a proceeding by issuance of a Notice of Proposed Rulemaking,¹ which would permit the

¹ The Commission's decision to forego the publication of the Petition in the *Federal Register* as an initial step was prompted in part by its analysis of the lengthy record compiled in Docket No. 82-58, *Actions To Adjust or Meet Conditions Unfavorable To Shipping In The United States Venezuela Trade*, which had been discontinued in December 1983.